WASHINGTON STATE DEPARTMENT OF
Natural Resources

APPLICATION FOR RECLAMATION PERMIT
FORM SM-8A

Check appropriate box(es): ☐ new permit ☒ revision of existing permit ☐ transfer of permit ☐ expansion

NOTE: Do not attempt to complete this form until you have carefully read the accompanying instruction document (SM8AINST.PDF). Do not attempt to use this form as an MS Word Template unless you are familiar with the use of templates in MS Word.

1. NAME OF APPLICANT/PERMIT HOLDER(S)
Pacific Rock Products, LLC

2. MAILING ADDRESS
8705 NE 117th Ave.
Vancouver, WA 98662

3. Telephone **360.254.7770**
UBI No. **601 688 448**

4. NAME OF MINE
English Pit (Bjornsen and English properties)

5. Street address and milepost of surface mine
18208 SE 1st Street
Vancouver, WA 98684

6. Distance (miles) **Zero**

7. Direction from **East**

8. Nearest community **Vancouver**

9. COUNTY **Clark**
No attachments will be accepted. Legal Description of permit area:

1/4	1/4	Section	Township	Range
NE	**SW**	**30**	**2N**	**3E**

10. TOTAL ACREAGE OF PERMIT AREA APPLIED FOR
(include all acreage to be disturbed by mining, setbacks, buffers, and associated activities during the life of the mine.)
60 acres

11. Do you or any person, partnership, or corporation associated with you now hold, or have you held, a surface mining operating or reclamation permit? ☒ yes ☐ no

If you answered yes to the above, please list:

Permit Number	Active Operation?		Reclamation current/complete?	
	Yes	No	Yes	No
See attached List	☐	☐	☐	☐
	☐	☐	☐	☐

12. Are all of these mines now in compliance with RCW 78.44, WAC 332-18, and conditions of the permits? ☒ yes ☐ no

13. Have you ever had a surface mine operating or reclamation permit revoked? ☐ yes ☒ no

Have you ever had a reclamation security forfeited? ☐ yes ☒ no
If you answered yes to either of the above, list the permit number(s):

14. Type of proposed or existing mine: ☒ pit ☐ quarry
Material(s) to be mined: ☒ sand and gravel ☐ rock or stone ☐ clay ☐ metal ☐ limestone ☐ silica ☐ other ____

Deposit type: ☐ glacial ☒ river floodplain (alluvial) ☐ river channel deposits ☐ talus ☐ bedrock ☐ lode ☐ unknown ☐ other

15. Total Acreage and Depth of Permit Area: **60 acres**
(Include all acreage to be disturbed by mining, setbacks, buffers, and associated activities during the life of the mine.) (See Form SM-6.)

Total area disturbed will be: **60 acres**.
Area to be disturbed in next 36 months will be **0** acres.

Maximum vertical depth below pre-mining topographic grade is **79.1** feet.
Maximum depth of excavated mine floor **210.9** feet relative to mean sea level

16. Expected start date of mining **Completed mine.**

17. Estimated number of years **Zero.**

18. Total quantity to be mined over life of mine (estimated): **Zero remaining** ☐ tons, or ☒ cu yds

19. Estimated annual production: **Zero remaining** ☐ tons, or ☒ cu yds

20. Subsequent land use: ☐ industrial ☐ commercial ☐ residential ☐ agricultural ☐ forestry ☐ wetlands and lakes ☒ Other **Business Park, Mixed Use**

Reclaimed elevation of floor of mine: **232-245** feet relative to mean sea level

Reclaimed elevation is shown on cross sections? ☒ yes ☐ no

Subsequent land use is compatible with County or Municipal comprehensive plan? ☒ yes ☐ no

County or Municipality Approval for Surface Mining (Form SM-6) attached? ☒ yes ☐ no

SEPA Checklist required? ☒ yes ☐ no

If any answers are no, explain:

21. Application fee for a new reclamation permit is herewith attached? ☐ yes ☒ no

CHECKLIST OF RECLAMATION STANDARDS

22. SEGMENTAL RECLAMATION

Permit area has been divided into segments for mining and a mining schedule has been developed? ☐ yes ☒ no
If no, explain: **Mining has been completed.**

Permit area has been divided into segments for reclamation and a reclamation schedule has been developed? ☐ yes ☒ no
Reclamation of the full 60 acres as one segment is near completion. Final reclamation will be completed on or before September 30, 2011 per Reclamation Agreement between PRP and landowner.

23. SITE PREPARATION

23A. Permit and Disturbed Area Boundaries

Boundary of the permit area has been marked on the ground with permanent boundary markers? ☒ yes ☐ no
Explain boundary markers: **Existing wire and wood fence along the western boundary and metal T-posts along the northern boundary.**

23B. Saving Topsoil, Subsoil, and Overburden for Reclamation

Thickness of topsoil is **0** feet
Thickness of subsoil is **0** feet
Depth to bedrock is **N/A** feet.
Total volume of topsoil is **18,000** cubic yards **and consists of previously stockpiled and clean, inert, imported topsoil that has been applied to the final slopes.**
Total volume of subsoil is **N/A** cubic yards.
Volume of stored topsoil/subsoil is **was less than 18,000** cubic yards and will require **N/A** acres for storage.

Storage areas are shown on maps and have been marked on the ground with permanent boundary markers? ☒ yes ☐ no

Topsoil will be salvaged? ☐ yes ☒ no
If no, explain:
Mining is complete. Previously stockpiled soil has already been used for reclamation. No soil remains in-situ on the 60 acres.

Topsoil and overburden will be moved to reclaim an adjacent depleted segment? ☐ yes ☒ no
If no, explain:
Mining is complete. Previously stockpiled soil has already been used for reclamation. No soil remains in-situ on the 60 acres.

Before materials are moved, vegetation will be cleared and drainage planned for soil storage areas? ☐ yes ☒ no
If no, explain: **Vegetation is already removed and soil storage areas had been previously established under current plan.**

Soil storage areas will be stabilized with vegetation to prevent erosion if materials will be stored for more than one season? ☐ yes ☒ no
If no, explain: **Vegetation is already removed and soil storage areas had been previously established under current plan.**

23C. Setbacks and Screens

Maximum depth of the mine will be **79.1** feet from **290** feet (*highest*) to **210.9** feet (*lowest*) elevation relative to mean sea level.
The setback for this site will be **25** feet wide along the permit boundary. **No change from current reclamation plan.**

Is a permanent, undisturbed buffer planned for this site? ☐ yes ☒ no
If no, explain: **No change from current reclamation plan.**

Setbacks are shown on maps and have been marked on the ground with permanent boundary markers? ☒ yes ☐ no
If no, explain: **A 25 foot setback exists along the site's western boundary. No change from current reclamation plan.**

Does this site have a backfilling plan that addresses the protection of adjacent property and how the final, stable slopes are to be achieved? ☒ yes ☐ no
If no, explain: **Pacific Rock Products, LLC will be submitting a corresponding revision to its existing reclamation plan for permit number 70-010009 to accompany the change in floor elevation for permit number 70-012557. The two plans currently share a common elevation. The proposed change to permit number 70-010009 will provide a corresponding common elevation.**

CHECKLIST OF RECLAMATION STANDARDS

23D. Buffers to Protect Streams and Flood Plains

If yes, see "Additional Information Requirements for Flood Plain Mines." This document is included in the SM8AINST.PDF file.

A stream buffer of at least 200 feet has been marked on the ground with permanent boundary markers?	☐ yes ☒ no
A buffer of at least 200 feet from the 100-year flood plain has been marked on the ground with permanent boundary markers?	☐ yes ☒ no
If no, explain: **No floodplain on or near the site.**	
Copy of Shoreline Permit from local government or the Dept of Ecology is attached? **N/A**	☐ yes ☒ no
Hydraulic Project Approval from the Department of Fish and Wildlife is attached? **N/A**	☐ yes ☒ no

23E. Conservation Buffers

Conservation buffers will be established for the following purpose(s): (*Check all that apply*)

☐ unstable slopes ☐ wildlife habitat ☐ water quality ☐ other _____

Describe the nature and configuration of the conservation buffer(s): **None.**

Conservation setbacks are shown on maps and have been marked on the ground with permanent boundary markers?	☐ yes ☒ no

23F. Ground Water

High water table depth is **215** feet ☒ relative to mean sea level, ☐ below original surface, or ☐ unknown.

Low water table depth is **210** feet ☒ relative to mean sea level, ☐ below original surface, or ☐ unknown.

Annual fluctuation of water table is from _____ feet on _____ to _____ feet on _____. **Refer to narrative and English Pit Hydrogeologic Study (H_2O Data Inc., 1996) and Revised Comprehensive Geotechnical Engineering Report, English Pit Reclamation/Closure (GeoDesign, Inc., 2008).**

Direction of ground water flow: **NW** **Refer to narrative and English Pit Hydrogeologic Study (H_2O Data Inc., 1996).**

Are well logs attached? **N/A, site previously mined to its permitted depth.**	☐ yes ☒ no
Is the aquifer perched?	☒ yes ☐ no
Is the shallowest aquifer: ☐ confined ☒ unconfined ☐ unknown	
The site will be mined: ☐ wet ☒ dry ☐ both	

Describe mining method: **Mining is complete.**

The site is in a:

☐ critical aquifer recharge area ☐ sole source aquifer ☐ public water supply watershed
☐ wellhead protection area ☐ special protection area ☐ designated aquifer protection area

It should be noted that the shallowest aquifer underlying the site is a perched aquifer not utilized for water supply. The water supply aquifer is the Troutdale located at greater depths.

Ground water study attached?	☐ yes ☒ no
If yes, see "Additional Information Requirements for Hydrologically Sensitive Areas." This document is included in the SM8AINST.PDF file.	
If no, explain: **Mining is complete. A hydrogeologic study was included with the previously accepted mine plan.**	

23G. Archeology

Are archeological/cultural resource sites present?	☐ yes ☒ no
If **yes**, describe how you will protect these resources:	

CHECKLIST OF RECLAMATION STANDARDS

24. MINING PRACTICES TO FACILITATE RECLAMATION

24A. Soil Replacement

Topsoil will be saved? ☒ yes ☐ no
If no, explain: **Mining is complete. Previously stockpiled soil has already been used for reclamation. No soil remains in-situ on the 60 acres. No change from current plan.**

Up to 4 feet of topsoil and (or) subsoil will be restored? ☐ yes ☒ no
If no, explain: **The subsequent use will require a growing medium be re-established on the slopes but not the mine floor. Topsoil has been replaced to a depth of approximately 12 inches on the slopes.**

Topsoil will be restored and seedbeds prepared as necessary to promote effective revegetation and to stabilize slopes and mine floor? ☒ yes ☐ no
If "yes" give details, if "no", explain: **A growing medium and seedbeds for revegetation has been established on the slopes but not the mine floor. No change from current plan.**

Subsoil will be replaced to an approximate depth of **0** feet on the pit floor and a depth of **N/A** on slopes.

Topsoil will be replaced to an approximate depth of **0** feet on the pit floor and a depth of **approximately 12 inches** on slopes.

Topsoil will be distributed evenly over the site? **N/A** ☐ yes ☒ no
If no, explain: **The subsequent use does not require application of topsoil to the mine floor. Topsoil has been applied to the mined/backfilled slopes. No change from current plan.**

If topsoil is in short supply, it will be strategically placed in depressions and low areas in adequate thickness to conserve moisture and promote revegetation? ☒ yes ☐ no
If no, explain: **See previous.**

Topsoil will be moved when conditions are not overly wet or dry? ☒ yes ☐ no
If no, explain:

Topsoil will be imported? ☒ yes ☐ no
If yes, describe source. If no, explain: **Clean, inert topsoil was imported in addition to the topsoil previously stockpiled on site.**

Synthetic topsoil made from compost, biosolids, or other amendments will be used and (or) made on site to supplement existing topsoil? ☐ yes ☒ no
If yes, explain:

Materials such as till, loess, and (or) silt are available on site that could be used to supplement topsoil for reclamation. ☐ yes ☒ no
If yes, explain:

Silt from settling ponds or a filter press will be used for reclamation? ☒ yes ☐ no
If yes, explain: **GeoDesign, Inc.'s 2007 Revised Comprehensive Geotechnical Engineering Report, English Pit Reclamation/Closure shows the sediments to be suitable for all post mining uses (Refer to GeoDesign, 2008, section 6.4 page 13).**

Settling pond clay slurries will be pumped or hauled to other segments for reclamation? ☐ yes ☒ no
If yes, explain:

Topsoil will be replaced with equipment that will minimize compaction, or it will be plowed, disked, or ripped following placement? ☒ yes ☐ no

If no, explain:

Topsoil will be immediately stabilized with grasses and legumes to prevent loss by erosion, slumping, or crusting? ☒ yes ☐ no
If no, explain:

Topsoil stockpile areas are shown on maps and will be marked on the ground with permanent boundary markers to protect from loss? ☐ yes ☒ no
If no, explain: **Topsoil has already been placed on the slopes and seeded.**

Segmental topsoil removal and replacement is shown on maps? ☐ yes ☒ no
If no, explain: **Soil was replaced in a single segment.**

Topsoil salvage and replacement plan included? ☒ yes ☐ no
If no, explain: **No change from current plan.**

24B. Removal of Vegetation

Vegetation will be removed sequentially from areas to be mined to prevent unnecessary erosion? ☐ yes ☒ no
If no, explain: **Mining is complete, no change to current plan.**

Small trees and other transplantable vegetation will be salvaged for use in revegetating other segments? ☐ yes ☒ no
If yes, give details. If no, explain: **Mining is complete, no change to current plan.**

Wood and other organic debris will be:
☐ recycled ☐ removed from site ☐ chipped ☐ burned ☐ buried ☐ used to synthesize topsoil or mulch
☒ other (*explain*) **No wood or organic debris on site.**
Solid waste disposal, burning, and land use permits are attached? ☐ yes ☒ no

Some coarse wood (logs, stumps) and other large debris will be salvaged for fish and wildlife habitats? ☐ yes ☒ no
If yes, give details. If no, explain: **No coarse wood or other large debris on site. No change from current plan.**

24C. Erosion control for Reclamation

Pit floor will slope at gentle angles toward highwall, sediment retention pond, or proper drainage? ☒ yes ☐ no
If yes, give details. If no, explain: **The pit floor will slope towards two infiltration areas as shown in the updated figures. Same concept as current plan, no change in result from current plan.**

Revegetation, sheeting, and (or) matting will be used to protect areas susceptible to erosion? ☒ yes ☐ no
If yes, give details. If no, explain: **Revegetation will occur on the slopes above the mine floor. Revegetation of the floor is not compatible with subsequent use. No change from current plan.**

Water control systems used for erosion control during segmental reclamation will:

Divert clean water around pit?	☒ yes	☐ no
Trap sediment-laden runoff before it enters a stream? **N/A**	☐ yes	☒ no
Result in essentially natural conditions of volume, velocity, and turbidity?	☒ yes	☐ no
Handle a 25-year, 24-hour peak event?	☒ yes	☐ no
(Have you attached calculation?)	☒ yes	☐ no
Be removed or reclaimed? **N/A**	☐ yes	☒ no

If any answers are no, explain:
No change in result from current plan. See discussion of hydrologic analysis (Refer to GeoDesign, 2008, section 6.3 page 13).

Will any water control systems be removed upon final reclamation? ☐ yes ☒ no
If yes, explain: **No change in result from current plan.**

Water control measure will be established to prevent erosion of setbacks and neighboring properties? If yes, give details. If no, explain: **All drainage contained on site. Stormwater infiltrates on site.**	☐ yes ☒ no
Storm-water conveyance ditches and channels will be lined with vegetation or riprap? If yes, give details. If no, explain: **Drainage sheet flows to infiltration areas.**	☐ yes ☒ no
Natural and other drainage channels will be kept free of equipment, wastes, stockpiles, and overburden? If no, explain:	☒ yes ☐ no

25. RECLAMATION TOPOGRAPHY

25A. Final Slopes

Final slopes will be created using the cut-and-fill method? Explain procedure to be used: **Final slopes have been created using the cut and cut and fill method of mining.**	☒ yes ☐ no
Slopes will be created by mining to the final slope using the cut method? Explain procedure to be used: **Final slopes have been created using the cut and cut and fill method of mining.**	☐ yes ☒ no
Slopes will vary in steepness? If no, explain: **The final slopes are planar and slopes of varying steepness are not compatible with subsequent use. No change from current reclamation plan. Refer to reclamation plan Figure 5.**	☐ yes ☒ no
Slopes will have a sinuous appearance in both profile and plan view? If no, explain: **The final slopes are planar and slopes of varying sinuosity are not compatible with subsequent use. No change from current reclamation plan.**	☐ yes ☒ no
Large rectilinear (that is, right angle, or straight, planar) areas will be eliminated? If no, explain: **Large rectilinear areas are compatible with subsequent use. No change from current reclamation plan and the previously approved slope waivers.**	☐ yes ☒ no
Where reasonable, tracks of the final equipment pass will be preserved and oriented to trap moisture, soil, and seeds, and to inhibit erosion? If no, explain:	☒ yes ☐ no

25B. Slope Requirements for Pits and Overburden/Waste Rock Dumps (non-saleable products)

If the mine is a quarry or in hard rock, skip to Quarry section (25C).

Slopes will vary between 2 and 3 feet horizontal to 1 foot vertical or flatter, except in limited areas where steeper slopes are necessary to create sinuous topography and control drainage? If no, explain: **Final slopes will vary between approximately 1.7:1 and 2:1 (slopes of 1.7:1 exist in the southwest corner of the site, 2:1 slopes exist everywhere else). No change from current reclamation plan and the slope waiver approved June 22, 2007.**	☐ yes ☒ no
For pits, slopes will not exceed 2 feet horizontal to 1 foot vertical except as necessary to blend with adjacent natural slopes? Give details: **Final slopes will vary between approximately 1.7:1 and 2:1 (slopes of 1.7:1 exist in the southwest corner of the site, 2:1 slopes exist everywhere else). No change from current reclamation plan and the slope waiver approved June 22, 2007.**	☐ yes ☒ no
Slope stability analysis required? **Per DNR letter from Chris Johnson dated April 12, 2006.** ***If yes, see "Additional Information Requirements for Mines with Potentially Unstable or Steep Slopes." This***	☒ yes ☐ no

document is included in the SM8AINST.PDF file.
Slope stability analysis provided by **Geo Design, Inc.**
(Refer to GeoDesign, 2008, section 6.1 page 12 and supporting Appendix C)

25C. Slope Requirements for Quarries and Hardrock Metal Mines

If mine is a pit in unconsolidated materials covered by Section 25B, go to Section 25D

Check the appropriate box(es)
☐ Slopes will not exceed 2 feet horizontal to 1 foot vertical.
☐ Slopes steeper than 1 foot horizontal to 1 foot vertical are an acceptable subsequent land use as confirmed on Form SM-6.
☐ Hazardous slopes or cliffs are indigenous to the immediate area and already present a potential threat to human life. Photo and maps attached to document presence of cliffs.
☐ Geologic or topographic characteristics of the site preclude slopes being reclaimed at a flatter angle and are an acceptable subsequent land use as confirmed on Form SM-6.

Slope stability analysis required? ☐ yes ☐ no
If yes, see "Additional Information Requirements for Mines with Potentially Unstable or Steep Slopes." This document is included in the SM8AINST.PDF file.
Slope stability analysis provided by _____

Measures will be taken to limit access to the top and bottom of hazardous slopes? ☐ yes ☐ no
Describe measures, or if no, explain:

Selective blasting will be used to remove benches and walls and to create chutes, buttresses, spurs, scree slopes, and rough cliff faces that appear natural? ☐ yes ☐ no
Describe procedures, or if no, explain:

Reclamation blasting will be used to reduce the entire highwall to a scree or rubble slope less than 2 feet horizontal to 1 foot vertical? ☐ yes ☐ no
Blasting plan is attached? ☐ yes ☐ no
If no, explain:

Access to benches will be maintained for reclamation blasting? ☐ yes ☐ no
If no, explain:

Small portions of benches will be left to provide habitat for raptors and other cliff-dwelling birds? ☐ yes ☐ no

25D. Backfilling

Slopes will require backfilling? **Final slopes will vary between approximately 1.7:1 and 2:1. No change from current reclamation plan and the slope waiver approved June 22, 2007.** ☒ yes ☐ no
Depth of backfilling is **Approx. 35** feet.
Slope stability compaction analysis required? ☒ yes ☐ no
Compaction analysis provided by **Geo Design, Inc. (Refer to GeoDesign, 2008, section 6.5 page 13)**

Backfilling plan and (or) permits are attached? **Geo Design, Inc. Geotechnical Reports and a Reclamation Agreement between PRP and landowner.** ☒ yes ☐ no
If no, explain:

Backfilling will be done with overburden material after topsoil has been separated? ☐ yes ☒ no
If no, describe composition and source of backfill material: **Backfilling was done with clean fill from the Columbia Tech Center and off site locations. The final cap is clean, imported fill. Some backfill for the compacted slopes is native material acquired on site.**

Explain method of placement of fill: **The base fill was pumped to the site from rock processing activities**

adjoining the site. The final cap was trucked on to the site, dumped, and progressively pushed outward. Saturated sediments have been spread out, dried, and reincorporated into the fill. Refer to the attached GeoDesign Inc. Report and Reclamation Agreement.

Locations of stockpiles are shown on maps and will be marked on the ground with permanent boundary markers? **N/A**	☐ yes ☒ no
Will backfill be imported? If yes, give volumes needed to meet reclamation plan: **See narrative.**	☒ yes ☐ no
Areas to be backfilled are shown on maps? If no, explain:	☒ yes ☐ no
All grading/backfilling will be done with clean, inert, non-organic solids? If yes, give details. If no, explain: **Clean, inert, non-organic fill was imported.**	☒ yes ☐ no
Backfilled slopes will be compacted? If yes, give details. If no, explain: **Refer to the Revised Comprehensive Geotechnical Engineering Report, English Pit Reclamation/Closure (Refer to GeoDesign, 2008, section 6.5 page 13).**	☒ yes ☐ no
Will you be backfilling into water? If yes, is slope stability analysis attached? If yes, describe method: **Refer to GeoDesign, 2008, section 6.1 page 12 and supporting Appendix C.**	☐ yes ☒ no ☒ yes ☐ no

25E. Mine Floors

Flat areas will be formed into gently rolling mounds? If yes, give details. If no, Explain: **Subsequent use benefits from near-planar pit floor surfaces.**	☐ yes ☒ no
Mine floor will be gently graded into sinuous drainage channels to preclude sheetwash erosion during intense precipitation? If yes, give details. If no, explain: **Subsequent use does not benefit from sinuous drainage channels.**	☐ yes ☒ no
Mine floor and other compacted areas will be bulldozed, plowed, ripped, or blasted to foster revegetation? If yes, give details. If no, explain: **Subsequent use does not benefit from revegetation of the mine floor.**	☐ yes ☒ no

25F. Lakes, Ponds, and Wetlands

Is water currently present in the area or will the mining penetrate the water table? ***If no, go to Section 25G.***	☐ yes ☒ no
Reclaimed areas below the permanent low water table in soil, sand, gravel, and other unconsolidated material will have a slope no steeper than 1.5 feet horizontal to 1 foot vertical? If yes, give details. If no, explain:	☐ yes ☐ no
If not already present, soils, silts, and clay-bearing material will be placed below water level to enhance revegetation? If yes, give details. If no, explain:	☐ yes ☐ no
Some parts of pond and lake banks will be shaped so that a person can escape from the water? If yes, give details. If no, explain:	☐ yes ☐ no
Armored spillways or other measures to prevent undesirable overflow or seepage will be provided to stabilize bodies of water and adjacent slopes?	☐ yes ☐ no

If yes, give details. If no, explain:

Wildlife habitat will be developed, incorporating such measures as:

Sinuous and irregular shorelines?	☐ yes	☐ no
Varied water depths?	☐ yes	☐ no
Shallow areas less than 18 inches deep?	☐ yes	☐ no
Islands and peninsulas?	☐ yes	☐ no

Give details:

Ponds or basins will:

Be located in stable areas?	☐ yes	☐ no
Have sufficient volume for expected runoff?	☐ yes	☐ no
Have an emergency overflow spillway?	☐ yes	☐ no
Spillways and outfalls will be protected (for example, rock armor) to prevent failure and erosion?	☐ yes	☐ no

If any answers are no, explain:

Proper measures will be taken to prevent seepage from water impoundments that could cause flooding outside the permitted area or adversely affect the stability of impoundment dams or adjacent slopes? ☐ yes ☐ no
If yes, give details. If no, explain:

Written approval from other agencies with jurisdiction to regulate impoundment of water is attached? ☐ yes ☐ no
If no, explain:

25G. FINAL DRAINAGE CONFIGURATION

Drainage will be capable of carrying the peak flow of the 25-year, 24-hour precipitation event (*Data are available at DNR Region offices*) ☒ yes ☐ no
If yes, are calculations attached? ☒ yes ☐ no
If yes, give details. If no, explain: **See discussion of hydrologic analysis (Refer to GeoDesign, 2008, section 6.3 page 13).**

Drainages will be constructed on each reclaimed segment to control surface water, erosion, and siltation? ☐ yes ☒ no
Clean runoff is directed to a safe outlet? ☐ yes ☒ no
If either yes, give details. If no, explain: **All proposed stormwater will be contained within the permit boundary and will be directed to the infiltration areas in the western portion of the property. Distinct drainages will not be necessary as the gentle topography will control/direct flow.**

Are these shown on maps? ☒ yes ☐ no

The grade of ditches and channels will be constructed to limit erosion and siltation? ☐ yes ☒ no
If yes, give details. If no, explain: **No channels planned.**

Natural-appearing drainage channels will be established upon reclamation? ☐ yes ☒ no
If yes, give details. If no, explain: **Drainage channels do not compliment the subsequent use.**

26. SITE CLEANUP AND PREPARATION FOR REVEGETATION

26A. Dealing with Hazardous Materials

CHECKLIST OF RECLAMATION STANDARDS

Hazardous materials are present at the mine site?	☐ yes ☒ no
If no, go to Section 26B	
The final ground surface drains away from any hazardous natural materials? If yes, give details. If no, explain:	☐ yes ☐ no
Plan for handling hazardous mineral wastes indigenous to the site is attached?	☐ yes ☐ no
If no, written approval from all appropriate solid waste regulatory agencies attached?	☐ yes ☐ no

26B. Removal of Debris

All debris (garbage, 'bone piles', treated wood, old mining equipment, etc.) will be removed from the mine site? ☒ yes ☐ no
All sheds, scale houses, and other structures will be removed from the site? ☒ yes ☐ no
If either answer is yes, give details. If no, explain: **There is no debris on site.**

27. REVEGETATION

The mine site is in: ☐ eastern Washington ☒ western Washington

The mine site is: ☐ wet ☒ dry?

The average precipitation is **45-55 inches** per year. **No change from current plan.**

Revegetation will start during the first proper growing season (fall for grasses and legumes, fall or late winter for trees and shrubs) following restoration of slopes? ☒ yes ☐ no
If yes, give details. If no, explain: **Revegetation is to take place only on slopes. No change from current plan.**

Test plots will be used to determine optimum vegetation plans? ☐ yes ☒ no

The site will not be revegetated because:

☐ It is a rural area with a rainfall exceeding 30 inches annually and erosion will not be a problem (requires approval of DNR).
☐ Demonstration plots and areas will be used to show that active revegetation is not necessary.
☐ Revegetation is inappropriate for the approved subsequent use of this surface mine.

Explain: **Subsequent use of the site is an urban use – only the slopes will be revegetated. Refer to the narrative.**

Documentation is attached? ☐ yes ☐ no

27A. Recommended Pioneer Species

In the Sections below, check the species that will be planted at your mine site:
**** indicates nitrogen-fixing species***

Western Washington Dry Areas

☒ alfalfa*	☐ Lupine*	☒ clover*	☒ orchard grass
☐ cereal rye	☐ perennial rye	☐ colonial bent grass	☐ ponderosa pine
☐ creeping red fescue	☐ red alder*	☐ Douglas fir	☐ shore pine
☒ ground cover	☐ shrubs	☒ other **Refer to the Revegetation section of the narrative.**	

Western Washington Wet Areas

☐ birdsfoot trefoil	☐ sedges	☐ cedar	☐ tubers
☐ cottonwood	☐ wetland grasses	☐ creeping red fescue	☐ willow
☐ red alder*	☐ other		

CHECKLIST OF RECLAMATION STANDARDS

Eastern Washington Dry Areas

☐ alder*	☐ grasses	☐ alfalfa*	☐ juniper
☐ black locust	☐ lodgepole pine	☐ clover	☐ lupine*
☐ deciduous trees	☐ ponderosa pine	☐ shrubs	☐ deep-rooted ground cover
☐ diverse evergreens	☐ other		

Eastern Washington Wet Areas

☐ alder*	☐ cottonwood	☐ poplar	☐ sedges
☐ serviceberry	☐ tubers	☐ willow	
☐ other			

Give planting details (stems/acres of trees and shrubs, see Forest Practices manual; lbs/acre of grass, legume, or forb mixture):

Refer to the Revegetation section of the narrative. Seed at 150 pounds per acre, broadcast (including hydroseed, etc.)

Describe weed control plan:

Control deleterious vegetation as necessary.

27B. Planting Techniques

Revegetation at this site will require:

Ripping and tilling?	☐ yes	☒ no
Blasting to create permeability?	☐ yes	☒ no
Mulching?	☒ yes	☐ no
Irrigation?	☐ yes	☒ no
Fertilization? **200 pounds per acre of 10-20-20 or comparable blend (broadcast).**	☒ yes	☐ no
Importation of clay- or humus-bearing soils?	☐ yes	☒ no
Other soil conditioners or amendments?	☐ yes	☒ no

Give details: **Refer to narrative.**

Trees and shrubs will be planted in topsoil or in subsoil amended with generous amounts of organic matter? ☐ yes ☒ no
If yes, give details. If no, explain: **No trees and shrubs are required in the revegetation plan.**

Mulch will be piled around the base of trees and shrubs?	☐ yes	☒ no
High quality stock will be used?	☐ yes	☒ no
Trees and shrubs will be planted while they are dormant?	☐ yes	☒ no
Stock will be properly handled, kept cool and moist, and planted as soon as possible?	☐ yes	☒ no
Seeds will be covered with topsoil or mulch no deeper than one-half inch?	☒ yes	☒ no

If any answers are no, explain: **No trees and shrubs are required in the revegetation plan.**

28. FINAL CHECKLIST

All required maps are attached (***See Instructions for detailed requirements***)?	☒ yes	☐ no
All required cross-sections are attached (***See Instructions for detailed requirements***)?	☒ yes	☐ no
Geologic map attached (if required)?	☐ yes	☒ no
All documents submitted have the date, the name and address of the permit holder, and the application number on every page of the material?	☒ yes	☐ no
The plan contains predominantly relevant information?	☒ yes	☐ no
Have you completed the SM-6 and has it been signed by the local jurisdiction?	☒ yes	☐ no
Have you provided the SEPA checklist?	☒ yes	☐ no
Have you provided a copy of the SEPA Determination (DNS, MDNS, or DS)? **DNR lead, determination pending.**	☐ yes	☒ no
Have you attached photographs?	☒ yes	☐ no

CHECKLIST OF RECLAMATION STANDARDS

Are additional supplemental studies included?	☒ yes ☐ no
If yes, check the appropriate box(es) below:	
☐ Archeological ☒ Geohydrologic ☒ Backfill ☒ Slope stability	
☐ Topsoil ☐ Flood plain ☐ Conservational ☐ Vegetation	
☒ Other **Reclamation Agreement (Between PRP and landowner)**	
Other permits required?	☐ yes ☒ no
If yes, check the appropriate box(es) below:	
☐ Shoreline permit ☐ Water Discharge Permit ☐ Solid Waste Permit	
☐ Air Quality Permit ☒ NPDS or General Discharge Permit **(WAG 50-1191, expires February 4, 2010)**	
☐ Hydraulic Project Approval	
☐ Special or Conditional Use Permit ☐ Other	

CHECKLIST OF RECLAMATION STANDARDS

When signed by the applicant and approved by the Department of Natural Resources, this document and the associated maps, cross sections, reclamation narrative, and other attachments will be the approved reclamation plan for this permit that the permit holder must follow. Significant variations from the approved reclamation plan may require that a new plan be submitted to the Department for approval.

The applicant shall be considered as the permit holder for this surface mine and shall be responsible for compliance with Chapter 78.44 RCW, Chapter 332-18 WAC, the approved reclamation plan and attachments, and the conditions of the permit if issued by the Department of Natural Resources.

I hereby agree to comply with this plan. *Signature of applicant or company representative* Chuck Rose	Name and Title of Company Representative (*Please print*) Chuck Rose Aggregate Manager	Date signed 12/9/08

SURFACE OWNERSHIP Give names, addresses, and signatures of all individuals with possessory interest in land. (attach signed copies of this page if more than one) I verify that the applicant has my permission to mine from my land. *Signature of landowner(s)* *Date Signed* I hereby verify that I have seen and approved this plan. *Signature of landowner(s)* *Date Signed* L. Lynne English 12-9-08	OWERSHIP OF RIGHTS TO REMOVE MINERALS BY SURFACE MINING Give names, addresses, and signatures of all individuals with rights. (attach signed copies of this page if more than one) I verify that the applicant has my permission to mine this land. *Signature of landowner(s)* *Date Signed* I hereby verify that I have seen and approved this plan. *Signature of landowner(s)* *Date Signed* L. Lynne English 12-9-08

FOR DEPARTMENTAL USE ONLY

Date accepted	Accepted by:	Title:	Reclamation Permit No.

Comments by Department:

CHECKLIST OF RECLAMATION STANDARDS

When signed by the applicant and approved by the Department of Natural Resources, this document and the associated maps, cross sections, reclamation narrative, and other attachments will be the approved reclamation plan for this permit that the permit holder must follow. Significant variations from the approved reclamation plan may require that a new plan be submitted to the Department for approval.

The applicant shall be considered as the permit holder for this surface mine and shall be responsible for compliance with Chapter 78.44 RCW, Chapter 332-18 WAC. the approved reclamation plan and attachments, and the conditions of the permit if issued by the Department of Natural Resources.

I hereby agree to comply with this plan. *Signature of applicant or company representative* Chuck Rose	Name and Title of Company Representative (*Please print*) Chuck Rose Aggregate Manager	Date signed 12/9/08

SURFACE OWNERSHIP Give names, addresses, and signatures of all individuals with possessory interest in land. (attach signed copies of this page if more than one) I verify that the applicant has my permission to mine from my land. *Signature of landowner(s)* *Date Signed*	OWERSHIP OF RIGHTS TO REMOVE MINERALS BY SURFACE MINING Give names, addresses, and signatures of all individuals with rights. (attach signed copies of this page if more than one) I verify that the applicant has my permission to mine this land. *Signature of landowner(s)* *Date Signed*
I hereby verify that I have seen and approved this plan. *Signature of landowner(s)* *Date Signed* Nancy A. Bjelland 12/8/08 Manager, Peninsula Investments, LLC.	I hereby verify that I have seen and approved this plan. *Signature of landowner(s)* *Date Signed* Nancy A. Bjelland 12/8/08 Manager, Peninsula Investments, LLC

FOR DEPARTMENTAL USE ONLY

Date accepted	Accepted by:	Title:	Reclamation Permit No.

Comments by Department:

RECEIVED
DEC 10 2008
Geology and Earth